Physica D 38 (1989) 397–398
North-Holland, Amsterdam

ANALYTIC SUBJECT INDEX

ac conductivity 260
Acoustics 41
Acoustic waves 56
Aerogels 41, 310
Aggregates 88, 154, 208, 310
Aggregation 13
Anderson localization 56
Angiogenesis 98
Anisotropic Kepler problems 160
Anisotropy 16, 192
Anomalous diffusion 184
Anomalous roughening 221
Arching 88
Asymmetric random walk 141

Ballistic deposition 252, 330
Ballistic deposition (at oblique incidence) 252
Ballistic deposition (spatially correlated) 252
Beam model 192
Besicovitch 64
Blood vessels 98
Boole 64
Boundary layer 203
Branched polymers (animals) 112
Branching 154
Branch orders 104
Brownian motion 71

Cantor set 141
Cantor spectrum 56
Cell motility 128
Clustering hierarchy 273
Coding off trajectories 160
Colloids 13, 310
Computer simulation 341
Conductivity 179
Conformations 291
Consolidation 13
Correlation functions 273, 345
Cosmology 273
Coupled maps 203
Criticality 5
Critical phenomena 56, 213
Cytotypes 112

Damping 296
Dendrites 16, 299
Deposition 315
Deterministic fractals 356
Deterministic growth 192
Dielectric breakdown model 279
Dielectric permittivity 260
Diffuse X-ray reflectivity 310
Diffusion length 299
Diffusion-limited aggregation 1, 98, 104, 154, 279, 330
Diffusion Stockgate processes 119
Directed clusters 356
Disorder 266
Dynamic critical phenomena 198
Dynamics 37

Eden model 330
Einstein relation 119
Elasticity 13, 192, 215
Elastic moduli 179
Electrochemical deposits 299
Energy transfer 291
Equilibrium 226
Evolution 32

Fluctuations 203
Fractal aggregates 208
Fractal dimensions 71, 104, 242, 291, 322
Fractal growth 356
Fractal shapes (variable) 112
Fractal structures 154, 260
Fractal time 260
Fractional Brownian motion 128, 362
Fracton dynamics 93
Fractons 41, 93, 266
Fracton scaling model 93
Fracture 192, 235
Fractured surface 242
Fracture of cracks 330
Fracture toughness 242
Free energy 345
Frustration 345

Galaxies 273
Game of life 5
Gel 330
Geometrical crossover 104
Grain size 242
Granular materials 88
Growth 37, 221
Growth patterns 235
Growth velocity 299
Guinier regime 310

Hausdorff 64
Hele-Shaw flow 16
Hopping conductivity 119
Hulls 377
Hurst exponent 128
Hydrodynamics 29

Inclusions 242
Interfaces 322
Intermittency 372
Intrinsic surface width 221
Invasion 172
Irreversible growth 279
Ising 345
Ising clusters 71

Kauffman model 341

Lacunary series 304
Lagrangian chaoticity 372
Large Schmidt numbers 322
Levy flights 304
Lifshitz singularity 287
Light scattering 134
Localization 41, 141, 266, 296
Localized modes 93

"Manhattan" 287
Membranes 112
Memory effects 192
Microspheres 315
Mixing of passive scalars 322
Multifractal measures 160
Multifractals 1, 37, 71, 184, 213, 356, 372

Neutron scattering 310
NeXt computer 330
Noise 226, 362
Nonequilibrium growth 16
Nonfractal shapes 112
Non-Newtonian fluids 172
Nuclear winter 29
Nyquist 226

$1/f$ noise 5, 198
Optical properties of fractals 208

Optics 208

Packing 88
Pair correlation function 310
Passive scalars 372
Pattern formation 98
Percolation 1, 5, 71, 88, 172, 179, 184, 215, 377
Perimeters 377
Permeability 172
Personal computers 330
Petroleum engineering 230
Phase transitions 351
Photon correlation spectroscopy 134
Physical laws 32
Plasticity 235
Polarization 208
Polymers 71, 215, 291, 351
Porod's law 310
Porous media 172, 230
Powders 88
Probability 330

Quasicrystal 56

R/S analysis 128
Random 266
Random Boolean networks 341
Random environment 141
Random fractals 184
Random networks 119
Random rough surfaces (growth of) 252
Random systems 215
Random velocities 287
Random walk 119, 230, 377
Renormalization 351
Resistor networks 1
Resonator 296
Retinal vessels 98
Riemann hypothesis 304

Sand 213
Sandpiles 198
Scaling 37, 134, 213, 310
Scaling analyses 112
Scattering 208
Self-affine fractal 310
Self-affine fractal surfaces 252
Self-affinity 221, 246, 362
Self-avoiding rings 112
Self-avoiding walks 291
Self-organization 5, 198
Self-similarity 310, 362
Sierpiński gasket 215, 351
Simulation 362
Singly connected bonds 179
Smart kinetic walk 377
Snowflake 330
Spinodal 37
Stability islands 160
Stress 88
Stress corrosion 192
Superdiffusive transport 287
Surface fractals 310

Thue–Morse sequence 141
Tip-splitting 16
Topography 246
Transmission 226
Tree-growth 154
Tree structure 104
Turbulence 5, 134, 203
Turbulent diffusion 304
Turbulent flows 322
Turing 64
Two-dimensional critical phenomena 71

Universality 213

Vesicles 112
Vibrational states of tenuous materials 93
Vibrations 13, 41
Viscoelasticity 192
Viscous fingering 104, 330

Water 330
Waves 296

X-ray scattering 310